

REMARKS

Claims 1-15 remain pending in the present application. Claim 1 has been amended. Claims 10-15 are new. Basis for the amendments and new claims can be found throughout the specification, claims and drawings originally filed.

REJECTION UNDER 35 U.S.C. § 103

Claims 1 and 3-5 are rejected under 35 U.S.C. § 103(a) as being unpatentable over JP '653 in view of UK '980. Applicant respectfully traverses this rejection.

In the present invention described in Claim 1, heat transmitted to the casing 17 mounted to the body surface of the electric heater 14a is transmitted through the material being higher in heat conductivity than air and filled up in the casing 17 to the lead wires 15b, 15c in the casing 17. Thus, the heat is transmitted through the lead wires 15b, 15c to the temperature detecting element 15a.

That is, the temperature detecting element 15a can detect not only the heat transmitted directly from the body surface of the electric heater 14a through the material higher in heat conductivity than air to the temperature detecting element 15a, but also the heat transmitted through the material higher in heat conductivity than air to the lead wires 15b, 15c.

Since the temperature detecting element 15a can detect the temperature of the entire portion surrounded by the material higher in heat conductivity than air in the casing 17, the response characteristic of the temperature detecting element 15a is improved.

Further, the fusing function of the temperature detecting element 15a is used to cut the current off, based on the fact that the temperature detecting element 15a melted by the temperature is drawn to the ends of the lead wires 15b, 15c at the ends of the temperature detecting element 15a due to the surface tension.

In the cited reference, JP 2002-324653, a temperature fuse 80a, 80b comprises lead wires 801 and 802, a low melting conductive member 803, an insulating case 804 and a covering member 806 covering the insulating case. However, in JP '653, since the temperature fuse 80a, 80b does not have a material corresponding to the material higher in heat conductivity than air in the present invention which plays a role in transmitting heat of an electric heater 53a to the lead wires 801 and 802, it is impossible to detect the temperature from the entire portion surrounded by the material higher in heat conductivity than air.

Further, in the cited reference, GB 2091980, a temperature fuse is not one for detecting a temperature by means of being mounted to the body surface of the electric heater as the present invention, and it does not have a portion corresponding to the lead wire of the present invention.

GB '980 is directed to a totally different problem than that being solved by the present invention. Insulating element 2 in GB '980 is not utilized to direct heat from the heating element to the fuse in the present invention. Insulating element 2 transmits the heat from the heating element to the liquid as shown in Figures 2-1 and 2-2. The fuse in GB '980 is in direct contact with the heating element. The problem being solved by GB '980 is that because the fuse is encased in the insulation material, when it melts it

has no place to go. Thus, insulator 7 is provided which burns into cinders to provide a space for the melted fuse.

“There are three possible sources for a motivation to combine references: the nature of the problem to be solved, the teachings of the prior art, and the knowledge of persons of ordinary skill in the art.” *In re Rouffet*, 149 F.3d 1350, 1357, 47 USPQ2d 1453, 1457-58 (Fed. Cir. 1998) (The combination of the references taught every element of the claimed invention, however without a motivation to combine, a rejection based on a *prima facie* case of obvious was held improper.). The level of skill in the art cannot be relied upon to provide the suggestion to combine references. *Al-site Corp. v. VSI Int'l. Inc.*, 174 F.3d 1308, 50 USPQ2d 1161 (Fed. Cir. 1999).

“In determining the propriety of the Patent Office case for obviousness in the first instance, it is necessary to ascertain whether or not the reference teachings would appear to be sufficient for one of ordinary skill in the relevant art having the reference before him to make the proposed substitution, combination, or other modification.” *In re Linter*, 458 F.2d 1013, 1016, 173 USPQ 560, 562 (CCPA 1972).

Obviousness can only be established by combining or modifying the teachings of the prior art to produce the claimed invention where there is some teaching, suggestion or motivation to do so found either explicitly or implicitly in the references themselves or in the knowledge generally available to one of ordinary skill in the art. “The test for an implicit showing is what the combined teachings, knowledge of one of ordinary skill in the art, and the nature of the problem to be solved as a whole would have suggested to those of ordinary skill in the art.” *In re Kotzab*, 217 F.3d 1365, 1370, 55 USPQ2d 1313, 1317 (Fed. Cir. 2000). See also > *In re Lee*, 277 F.3d 1338, 1342-44, 61 USPQ2d

1430, 1433-34 (Fed. Cir. 2002) (discussing the importance of relying on objective evidence and making specific factual findings with respect to the motivation to combine references); < *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988); *In re Jones*, 958 F.2d 347, 21 USPQ2d 1941 (Fed. Cir. 1992).

Applicants submit that the proper test for evaluating prior art under 35 U.S.C. Section 103 is whether or not the prior art, either individually or taken together, can be seen as suggesting the Applicants' solution to the problem which the invention addresses. See: *Rosemont, Inc. v. Beckman Instrument, Inc.*, 221 USPQ 1, 7, (Fed. Cir. 1984). The scope of pertinent prior art has been defined as that reasonably pertinent to the particular problem with which the inventor was involved. See: *Lindemann Machinefabrik GMBH v. American Hoist and Derrick Co.*, 221 USPQ 481, 487 (Fed. Cir. 1984). Applicants assert that the use of hindsight in picking and choosing isolated elements from various pieces of prior art and applying it to the problems addressed by Applicants' invention is improper according to the above-discussed judicial standards governing the proper application of 35 U.S.C. Section 103.

In *Lindemann, supra*, in reversing a district court holding of invalidity of certain patent claims under Section 103, the C.A.F.C. indicated in relevant part:

"The district court defined the problem here broadly, i.e., as the problem of compressing waste materials. That finding is clearly erroneous. The inventors' problem was the crushing of massive metal scrap. Nothing in the prior art relied on as invalidating had any relation whatever to the crushing of massive metal scrap." 221 USPQ at 487.

The Court in *Lindemann* also later observed:

"The '315 patent [in suit] specifically stated that it disclosed and claimed a combination of features previously used in two separate devices. That fact alone is not fatal to patentability. The claimed

invention must be considered as a whole, and the question is whether there is something in the prior art as a whole to suggest the desirability, and thus the obviousness, of making the combination. ...That question must here be answered in the negative.

"Nothing in the references alone or together suggests the claimed combination as a solution to the problem of crushing rigidly massive scrap." 221 USPQ at 488.

In a recent decision of the C.A.F.C., *Panduit Corp. v. Dennison Manufacturing Co.*, 810 F. 2d 1561, 1 U.S.P.Q. 2d 1593 (Fed. Cir. 1987), Chief Judge Markey discussed and applied the various judicial pronouncements summarized above in reversing a lower court's holding of invalidity based on obviousness under Section 103, and further cautioned against the impermissible use of hindsight in picking and choosing isolated elements from various pieces of prior art, which bear little or no relationship to each other or to the problems addressed by the Applicants' invention, in reconstructing the claimed invention from the Applicants' own disclosure.

In the *Panduit* decision, Chief Judge Markey offered the opinion that such impermissible hindsight reconstruction from isolated elements in a number of prior art references in order to arrive at the claimed combination is contrary to the purpose of the patent laws.

"Virtually all inventions are necessarily combinations of old elements. The notion, therefore, that combination claims can be declared invalid merely upon finding similar elements in separate prior patents would necessarily destroy virtually all patents and cannot be the law under the statute, Section 103." 810 F. 2d at 1575, 1 USPQ 2d at 1603.

Furthermore, Judge Markey severely criticized the lower court for failing to view the claimed combination invention as a whole, but rather selecting bits and pieces from prior patents that might be modified to fit the lower court's interpretation of the claims.

Further, in the *Panduit* decision, Judge Markey discussed the fact that the large body of prior art, individual pieces of which show various bits and pieces of the claimed combination, can actually support a conclusion of non-obviousness, rather than serving as a basis for hindsight bit-by-bit reconstruction of the claimed invention.

"Indeed, that the elements noted by the court lay about in the prior art available for years to all skilled workers, without, as the court found, suggesting anything like the claimed inventions, is itself evidence of non-obviousness. ...[The court] nowhere reconciled [its] evaluations with its contrary findings that no one skilled in the art had for years been led to those evaluations by the prior art." 810 F. 2d at 1577-78, 1 USPQ 2d at 1605.

Judge Markey's opinion also addressed the hindsight picking and choosing problem accordingly:

"The district court nowhere pointed to anything in the prior art that would have suggested the desirability, and thus the obviousness, of making the distinctive structural elements and combinations... invented and claimed. Nor did the court succeed in the difficult task of casting its mind back into that of a person of ordinary skill in the art that had no pre-knowledge of the crucial structural differences that vitalize [the] inventions." 810 F. 2d at 1580, 1 USPQ 2d at 1606 (emphasis in the court's opinion).

In the present application, the cited references relate to problems that are quite distinct from the specific problems addressed by Applicants' claimed invention. Thus, it appears that at the time the invention was made, one skilled in the art would not have looked to these references in order to solve these problems, at least as these problems are addressed by Applicants' claimed invention.

Thus, Applicant believes Claim 1 patentably distinguishes over the art of record. Likewise, Claims 3-5, which ultimately depend from Claim 1, are also believed to patentably distinguish over the art of record. Reconsideration of the rejection is respectfully requested.

NEW CLAIMS

New Claims 10-15 include dependent Claims 10-13 which Applicant believes properly further limit Claim 1, independent Claim 14, which has limitations similar to Claim 1, and dependent Claim 15, which Applicant believes properly further limits Claim 14.

CONCLUSION

It is believed that all of the stated grounds of rejection have been properly traversed, accommodated, or rendered moot. Applicant therefore respectfully requests that the Examiner reconsider and withdraw all presently outstanding rejections. It is believed that a full and complete response has been made to the outstanding Office Action, and as such, the present application is in condition for allowance. Thus, prompt and favorable consideration of this amendment is respectfully requested. If the Examiner believes that personal communication will expedite prosecution of this application, the Examiner is invited to telephone the undersigned at (248) 641-1600.

Respectfully submitted,

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